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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,922	02/14/2002	Gregory Poilasne	005111.P012	3647

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD, SEVENTH FLOOR
LOS ANGELES, CA 90025

EXAMINER

LE, HOANGANH T

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,922

Applicant(s)

POILASNE et al

Examiner

HOANGANH LE

Art Unit

2821



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 6) ☐ Other:

DETAILED ACTION

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "the housing and wherein the ground plane is adjacent to a first surface of the housing and the first and second conductors are adjacent to a second surface of the housing" of claims 12 and 15 and "the ~~the~~ parasitic antenna element is disposed between the plane of the "U"- shaped conductor and the ground plane" of claim 30 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-12, and 15-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Ko et al (the US Patent No. 5,781,158, cited by Applicant).

The Ko et al reference teaches in figure 6 an antenna comprising: a ground plane 11a; a first conductor 15a having a first length extending longitudinally above the ground plane and having a first end electrically connected to the ground plane 11a at a first location; a second conductor 15b having a second length extending longitudinally above the ground plane and parallel to the first conductor, the second conductor having a first end electrically connected to the ground plane at a second location; an antenna feed 16 coupled to the first conductor 15a; wherein the first and second conductors are equidistant from the ground plane (figure 6). The first and second conductors are both disposed on a single substrate 14a. The single substrate comprises a flexible printed circuit substrate. The first length is approximately equal to the second length (figures 9, 14, 19 and 23). The first location is spaced apart from the second location by a distance approximately equal to the first length. The first and second conductors 13d comprise a first antenna element and further comprising a second antenna element having

a third conductor 15g and a fourth conductor 15g (figure 14). The second antenna element is a parasitic element. The first and second antenna elements are parallel to each other (figure 14). The first and second antenna elements are non-parallel to each other (figure 19). The third and fourth conductors 15i are equidistant from the ground plane at a distance equal to a distance between the first and second conductors 15j and the ground plane (figure 19). The third and fourth conductors are equidistant from the ground plane at a distance different from a distance between the first and second conductors and the ground plane (figure 14). An electronic device has a housing and wherein the ground plane is adjacent to a first surface of the housing and the first and second conductors are adjacent to a second surface of the housing (col. 1, lines 17-18). The first and second conductors are arched above the ground plane.

5. Claims 26-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Sanad (the US Patent No. 5,627,550, cited by Applicant).

The Sanad reference teaches in figure 14 an antenna comprising: a ground plane 88; a generally "U"- shaped conductor 84 having first and second parallel legs lying in a plane spaced apart from the ground plane 88; an antenna feed 34 coupled to a first end of the first leg; a short 84b between the ground plane and at least one of the first and second legs. The short extends from the ground plane to the first end of the first leg (figure 14).

Figure 14 shows a parasitic antenna element 86 in proximity to the "U"- shaped conductor 84. The parasitic antenna element 86 is disposed to a side of the "U" shaped conductor. The parasitic antenna element is disposed between the plane of the "U"- shaped conductor and the ground plane. The parasitic antenna element comprises a first conductor 82 having a first length extending longitudinally above the ground plane 88 and having a first end 82b electrically connected to the ground plane 88, a second conductor 86 having a second length extending longitudinally above the ground plane and parallel to the first conductor 82, the second conductor 86 having a first end 86b electrically connected to the ground plane 88, wherein the first and second conductors are equidistant from the ground plane (figure 14).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (cited above) in view of ^{Smith et al} _A.

The Ko et al reference teaches every feature of the claimed invention, excluding the first and second conductors being arched above the ground plane.

The Smith et al reference teaches in figure 4b conductors 2,3 being arched above the ground plane 4 in order to improve the efficiency of the antenna (col. 5, lines 55-60).

Since one of ordinary skill in the art would recognize the benefit of improving the efficiency of the antenna, it would have been obvious to provide Ko et al with ^{the conductors being} ~~spring~~ ^{arched} ~~contacts~~ as taught by Smith et al.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (cited above) in view of Lahti (the US Patent No. 6,348,894).

The Ko et al reference teaches every feature of the claimed invention, excluding spring contacts.

The Lahti reference teaches in col. 3, lines 43-45 the use of spring contacts to provide electrical contact between the antenna and the ground.

Since one of ordinary skill in the art would recognize the benefit of improving the electrical contact of the antenna, it would have been obvious to provide Ko et al with spring contacts as taught by Lahti.

Correspondence

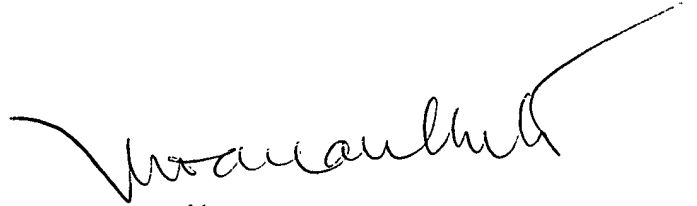
9. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Primary Examiner Hoanganh Le whose telephone number is (703) 308-4921.

10. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

11. Papers related to Technology Center 2800 applications **only** may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 308-7722 or (703) 308-7724.

Hoanganh Le
Primary Examiner
Art Unit 2821
January 10, 2003



Hoanganh Le
Primary Examiner